

Assumptions to be used for new EU ETS carbon leakage list 2015-2019

Registration	
What is your profile? -single choice reply-(compulsory)	Trade association representing businesses
Please enter the name of your business/organisation/association etc: -open reply-(compulsory)	
IFIEC Europe	
Please enter your contact details (address, telephone, email): -open reply-(compulsory)	
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If relevant, please state if the sector/industry you represent falls under the scope of the EU ETS: -single choice reply-(compulsory)	Yes
Please explain why the question above is not relevant in your case (max 500 characters) -open reply-(optional)	
If your sector/industry falls under the scope of EU ETS, does the sector/company you represent receive free allocation under the harmonised allocation rules? -single choice reply-(compulsory)	Yes
Please explain why the question above is not relevant in your case (max. 500 characters) -open reply-(optional)	
I. General: competitiveness, carbon leakage and the 2009-2014 carbon leakage list	
As stipulated in the ETS Directive, the aim of the EU Emission Trading System is to promote reductions of greenhouse gas emissions in the most cost-effective and economically efficient manner. To address the risk that, for reasons of costs related to climate policies, relocation of companies to areas which have laxer constraints on greenhouse gas emissions could lead to an increase of carbon dioxide emissions, Commission Decision 2010/2/EU has established the list of sectors and subsectors which are deemed to be exposed to a significant risk of carbon leakage. This list is valid from 2009 to 2014 included, and is incorporated in the determination of free allocation for 2013 and 2014. In your view, how has the risk of carbon leakage evolved since the adoption of the first carbon leakage list in 2009: -single choice reply-(compulsory)	Increased slightly
If you wish, please motivate your answer (max. 1000 characters) -open reply-(optional)	
1. Progress on the new Global Climate Agreement was less than hoped for. 2. The EU ETS allocation rules have design errors which: (a) give - above a product specific break-even CO2-price - an incentive to lower production up to 49%, sell the freed allowances and import the shortfall in production from outside the EU. An allocation system based on actual production levels would not give this incentive. (b) deter investments due to under-allocation in case of growth and complex and risky allocation rules for new entrants. 3. The indirect emission costs are not effectively compensated due to incomplete EU guidelines and unequal implementation throughout the EU. 4. The additional costs due to other overlapping climate policy instruments, e.g. support for renewable energy (surcharges, grid tariffs), are higher than expected and are increasing further. These effects cannot be offset by another ex-ante allocation effect: over-allocation during recession or economic crisis.	

In your view, how adequate policy instruments are free allocation and the increased allocation for sectors on the carbon leakage list in particular in relation to the risk of carbon leakage? -single choice reply-(compulsory)	Quite adequate
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If you wish, please motivate your answer (max. 1000 characters) -open reply-(**optional**)

The tool is adequate but implementation faults minimise its effectiveness. Crucial are: (1) the benchmark level, (2) the activity level (=production volume), (3) the compensation for indirect emissions. (1) The allocation based on top 10% benchmarks is likely to be decreased further through correction factors. The decrease of 1.74% p.a. is higher than the usual rate of carbon efficiency improvements. Therefore, the allocation can be below the technical potential in the future. (2) The fixed production volume is an incentive for carbon leakage (s. B.2). (3) The compensation for indirect emissions is restricted and uncertain (s. B.2). Thus, the allocation rules must be revised to prevent carbon leakage also at higher CO2-prices. In addition, an EC impact assessment should analyse the effects of different allocation mechanisms, i.e. auctioning, ex-ante and ex-post free allocation (incl. indirect allocation).

Currently 154 sectors and 16 sub-sectors are on the carbon leakage list valid for 2009-2014. In your view, how adequate is the coverage of sectors and sub-sectors in the current carbon leakage list? -single choice reply-(compulsory)	The carbon leakage list is too short
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If you wish, please motivate your answer (max. 1000 characters) -open reply-(**optional**)

There are still a few sub-sectors missing on the list, for example yeast extracts. Since the quantitative assessment of potential carbon leakage is solely backward looking, it is very important that qualitative assessments are done where relevant. The complementary qualitative analysis can add the necessary forward looking elements. The carbon leakage list must be as accurate as possible also because it has an impact far beyond the EU ETS. It is becoming a reference for other European legislation. For instance, it is used as a basis for the exemption from the carbon tax in the proposed revision of the Energy Taxation Directive.

II. Methodology for new carbon leakage list 2015-2019: options to be discussed in the Impact Assessment

In your view, is there an increase of the ambition of domestic climate policies undertaken in countries outside the EU/EEA since 2009? -single choice reply-(compulsory)	Yes, some increase
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If you wish, please motivate your answer (max. 1000 characters) -open reply-(**optional**)

The growing interest in emissions trading schemes outside Europe is encouraging. However, the emerging connection with Switzerland and possibly Australia are no reason to adapt the trade intensity calculations automatically. 1. First, it has to be thoroughly analysed whether the carbon cost to industry in countries not presently part of the EU ETS is comparable. For example, the Australian ETS has a much more favourable allocation to industry giving a better resistance to carbon leakage (s. B.A.4). It would not be logical that with a favourable free allocation to industry in other countries, the European industry should be put on the way to full auctioning. 2. Second, third countries committing to reduce greenhouse gas emissions should account for a decisive share of global production in order to fulfil the requirements mentioned in the EU ETS Directive (Art. 10a (18)).

Australia -single choice reply-(compulsory)	Not comparable to the ETS
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Switzerland -single choice reply-(compulsory)	Partially comparable to the ETS
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If you wish, please motivate your answer (max. 1000 characters) -open reply-(**optional**)

A statistical analysis of the possible answers "fully, partially or not comparable" may be very misleading as the answers may be differently motivated. "Not comparable" for the Australian ETS means in this case that this scheme is not worse but better than the EU ETS. The Australian ETS avoids some crucial shortcomings of the EU ETS, especially with regard to the design of the carbon leakage provisions. Free allocation to industry is based on the following characteristics: - Benchmarks based on weighted average efficiency instead of top 10% - Actual production levels - Free allocation for indirect emissions with a CO2 factor of 1.0 ton CO2/MWh As the Australians learned from the Europeans, the Europeans should now learn from down under.

China -single choice reply-(compulsory)	Not comparable to the ETS
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South Korea -single choice reply-(compulsory)	Not comparable to the ETS
New Zealand -single choice reply-(compulsory)	Not comparable to the ETS
USA -single choice reply-(compulsory)	Not comparable to the ETS
Brazil -single choice reply-(compulsory)	No opinion
Russian Federation -single choice reply-(compulsory)	No opinion
Middle Eastern countries -single choice reply-(compulsory)	No opinion
Other country (please specify below) -single choice reply-(optional)	No opinion
If you wish, please motivate your answer (max. 2000 characters) -open reply-(optional)	
<p>An ETS as such is not enough to have an environmentally effective system (proper incentives to reduce emissions) including a solid resistance to carbon leakage. For example, the EU ETS allocation rules for phase 3 (2013-2020) have changed significantly compared to those of phase 2 (2008-2012). The main progress was that a benchmark-based allocation has replaced historical grandfathering (allocation based on historical emissions). Unfortunately, the 7 Chinese ETS pilots seem to apply historical grandfathering, probably because the time was too short to implement benchmarks. The most important aim of these pilots is probably to achieve a good monitoring of emissions, which is a challenge in China. It is uncertain whether the nation-wide ETS, which is likely to come but still uncertain, will avoid the pitfalls of historical grandfathering. The South Korean ETS will most likely resemble the Australian ETS, e.g. an indirect allocation is announced and the activity factor will most likely be actual production (ex-post system). For Russian Federation and Middle East no concrete plans are known by us.</p>	
<p>The ETS Directive requires the use of the Eurostat NACE classification (Statistical Classification of Economic Activities in the European Community^[1]) for the definition of sectors to be assessed for potential inclusion in the carbon leakage list. In your view, what should be the starting point for the analysis of sectors, taking into consideration both feasibility and the structure of European industry?</p>	NACE-4
<p>[1] http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-RA-07-015/EN/KS-RA-07-015-EN.PDF -single choice reply-(compulsory)</p>	
If you wish, please motivate your answer (max. 1000 characters) -open reply-(optional)	
<p>According to recital 24 of the Directive, sectors should be assessed, as a starting point, at a 3-digit level (NACE-3 code) or, where appropriate and where the relevant data are available, at a 4-digit level (NACE-4 code). In our view, NACE-4 level is a good starting point which gives a good indication for many sectors to build on for further analysis, where needed. A NACE-3 level analysis may be appropriate for some sectors, depending on the sectors' structures. However, exposed sectors or sub-sectors may be hidden in the NACE-4 level. In this case a more detailed analysis on deeper levels is appropriate. It is therefore vital that industry federations are consulted and that these federations can ask for assessment on the appropriate level of detail, as determined by EU ETS Directive Art. 10a (13) ("For the purpose of implementing this Article, the Commission shall consult the Member States, the sectors or subsectors concerned and other relevant stakeholders").</p>	
In your view, the auctioning factor (an estimation concerning the share of allowances to be acquired if not on the carbon leakage list) should be: -single choice reply-(compulsory)	Uniform for all sectors
If you wish, please motivate your answer (max. 1000 characters) -open reply-(optional)	
<p>As in 2009 (75% direct, 100% for indirect emissions), a uniform auctioning factor is advised to keep the assessment simple but still justified and because the accuracy of data will be a challenge (a.o. electricity generator (EG) heat to ETS installations, waste gas used</p>	

by EGs). Based on (simple) calculations we advise an auctioning factor of 80%-85% which reflects the actual situation accurately considering that: - For direct emissions the share of free allocation to non-exposed sectors decreases to 30% in 2020. - All installations below the benchmark level – 90% of all installations – will have a higher auctioning factor than 70% in 2020. These plants should not be driven outside of Europe by setting a too low auctioning factor. - The allocation rules foresee no additional allocation for production growth. Furthermore, the allocation rules for capacity extensions are likely to lead to under-allocation. This should be taken into account when setting the auctioning factor.

The current carbon leakage list, applied for free allocation in 2013 and 2014, is based on a carbon price of €30. In your view, is this an adequate carbon price to be used for the new carbon leakage list for the period 2015-2019? -single choice reply-(compulsory)	Yes
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Please motivate your answer (max. 1000 characters) -open reply-(optional)

Legally, a carbon (EUA) price of € 30/ton CO2 must be used according to the impact assessment referred to in EU ETS Directive Art. 10a (14). A carbon price of € 30/ton CO2 is also conceptually justifiable: the price must reflect at least the level, up to which the EU ETS should be resistant to carbon leakage. Under this consideration € 30 / ton CO2 must probably be regarded as too low. For new investments planned after the crisis and started up by 2020 the relevant time horizon is 2020 to 2040. For this period, the CO2-prices can be expected to be much higher than today and than €30/ton CO2. For example, in the Commission's Energy Roadmap Diversified Supply scenario, the CO2-prices are € 25/ton in 2020, € 52/ton in 2030, € 95/ton in 2040 and thereafter sharply rise to € 265/ton in 2050. In practice a policy choice is needed for the level of the carbon price up to which the resistance to carbon leakage should work. Such a level could be for example € 90-100/ton CO2.

In your view, which is the most adequate CO2 emission factor that should be used for the calculation of indirect costs? -single choice reply-(compulsory)	Emission intensity of marginal electricity generation in the current system
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If you wish, please motivate your answer (max. 1000 characters) -open reply-(optional)

The Alliance of Energy Intensive Industries issued two papers (2009, 2010) with ample evidence that the marginal power plant determines the carbon cost impact of indirect emissions. This also reflects the environmental impact: when more electricity is needed or electricity is saved, there will be more respectively less electricity production by the marginal power plants. The state aid guidelines for the EU ETS financial compensation recognise the concept of the marginal power plant (s. Annex IV). Therefore the second bullet under B.A.13 is also correct. The weighted average of the marginal power plants based on the state aid guidelines emission factors and Eurostat 2011 is 0.723 ton CO2/MWh. This factor still underestimates the indirect costs of EU climate change policy because the costs of other instruments are not considered (i.e. the surcharges for renewable electricity).

Measurable -single choice reply-(compulsory)	3
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Relevant -single choice reply-(compulsory)	No opinion
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Important -single choice reply-(compulsory)	No opinion
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Measurable -single choice reply-(compulsory)	3
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Relevant -single choice reply-(compulsory)	5
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Important -single choice reply-(compulsory)	5
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Measurable -single choice reply-(compulsory)	3
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Relevant -single choice reply-(compulsory)	5
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Important -single choice reply-(compulsory)	5
If you wish, please motivate your answer (max. 1000 characters) -open reply-(optional)	
A statistical analysis of the responses to these questions seems not meaningful because the interpretations of “relevant” and “important” may differ. B.A.15: Virtually no sector can escape the carbon cost burden. Efficiency improvements are ≤ 0.8%/year (see sector roadmaps), much lower than LRF of 1.74%. After 2030 technologies as CCS are needed, but this will only be feasible with a new Global Climate Agreement with equal carbon burdens for industries globally. B.A.16 and 17: These should be obtained from informed consultants that have analysed e.g. investment trends, development of trade flows. Other major issues affect profit margins negatively and thus build a problem for maintaining and expanding a manufacturing basis in the EU and should be taken into account as well: • The prices for natural gas, petcoke and chemical feedstock in important competing regions are much lower than in Europe. • The electricity prices are significantly higher compared to the major competing regions.	
Complete -single choice reply-(compulsory)	4
Adequate -single choice reply-(compulsory)	1
Comparable across sectors -single choice reply-(compulsory)	2
Transparent -single choice reply-(compulsory)	2
Well-structured -single choice reply-(compulsory)	1
Clear and understandable -single choice reply-(compulsory)	2
If you wish, please motivate your answer (max. 1000 characters): -open reply-(optional)	
The Ecofys/Öko-Institut study contains the most important points but is problematic: • The EU ETS Directive [Art. 10a (17)] does not prescribe a hierarchy as proposed (step 1-3) but a balanced assessment of all relevant factors together. A sector should not only be considered for a qualitative assessment “if the sector has borderline values on the quantitative criteria” because e.g. a low historical trade intensity can still mean a high risk of carbon leakage in the future. • The prices for natural gas, feedstock and electricity must be taken into account. • The assessment should be forward looking with carbon prices until e.g. € 60-90/ton CO2 and an auctioning factor of 80%-100%, because for new investments the relevant time horizon is 2020 to 2040. • The marginal instead of the average power plant should be used. • The “deduction approach” for trade intensity ignores exports to and from third countries for connected countries (e.g. Switzerland).	
In the context of qualitative assessment, after considering the indicators listed in the study, do you consider that other indicators/variables should be taken into account when gathering basic evidence? Please explain (max. 2000 characters) -open reply-(optional)	
The following parameters are proposed for a forward looking qualitative assessment: • All costs related to climate change policy along the value chain, in particular upstream costs, should be taken into account. • The value chain analysis should also consider the implication for downstream sectors if an upstream sector is deleted from the carbon leakage list. • The inability to pass through locally imposed costs for sectors whose product prices are determined internationally, e.g. on global exchanges such as London Metal Exchange, should be taken into account. • An auctioning factor of 100% with sensitivity analysis of 80% • A carbon price of € 30/ton CO2 with sensitivity analysis of e.g. € 60-90/ton CO2 • New build efficiency by 2020 of 0.95 x “top 10%” without CCS or biomass feedstock or biomass energy. The Cefic Roadmap (2013) shows that technologies will improve, but not as fast as implied by the allocation rules. A 30% improvement of carbon efficiency by 2050 of existing (weighted average) chemical plants – without CCS or biomass – is optimistic. The LRF demands ~65% in 2050. For e.g. ammonia the presently expected improvement between 2010 and 2050 may be 10%-11%.	
If you wish, please provide any general comments on the questionnaire -open reply-(optional)	
Carbon leakage is not only induced by EU ETS alone. Further climate change policy measures cause energy costs high above international competitors' ones. Today such inflated EU energy prices are a higher risk for loss of manufacturing in the EU than the pure	

carbon costs. If the EU takes the risk for its economic rehabilitation seriously, than the comprehensive picture of carbon and energy related leakage must be taken into account. For many processes in e.g. chemicals, steel and cement the carbon leakage break-even price at 100% auctioning is € 15-35/ton CO₂. Above these prices, producing outside Europe and transporting the product into Europe is cheaper than producing in Europe. Biomass for bulk application and CCS is beyond the present planning horizon. Generally, a statistical analysis of many answers to this questionnaire does not seem meaningful.